metastatic breast cancer patients. Although the mean of ICER is USD$135,701.69, the upper limit 95% CI suggests that Lapatinib plus Capecitabine may be cost-ineffective. In addition, for reasonable changes in key parameters, the combination therapy becomes cost-ineffective.

PCN24

ECONOMIC EVALUATION OF SORAFENIB VERSUS BEST SUPPORTIVE CARE IN ADVANCED RENAL CELL CARCINOMA: AN UPDATED COST-EFFECTIVENESS ANALYSIS

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OBJECTIVE: An earlier economic evaluation showed that sorafenib was cost-effective compared to best supportive care (BSC) in advanced renal cell carcinoma (RCC) (ASCO 2006). Recently latest overall survival data from the Phase III TARGET study was presented (ASCO 2007). The objective of this study was to update the earlier economic model with the latest clinical data to evaluate the cost-effectiveness of sorafenib+BSC versus BSC alone in advanced RCC from a United States payer perspective. **METHODS:** A Markov model was developed to project lifetime survival and costs associated with sorafenib+BSC and BSC alone. The model tracked patients with advanced RCC through three states—PFS, progression, and death. Transition probabilities varied for each three-month period and were obtained from the TARGET data. Treatment effectiveness was measured in life-years gained. Resource utilization included drug, administration, physician visits, monitoring, and adverse events. Costs and survival benefits were discounted annually at 3%. Univariate and probabilistic sensitivity analyses were conducted. **RESULTS:** Lifetime per patient costs were $92,222 and $36,634 for sorafenib+BSC and BSC alone, respectively. The incremental survival benefit with sorafenib+BSC was 0.88 life years. The incremental cost-effectiveness ratio (ICER) of sorafenib+BSC versus BSC alone was $63,219 per LYG. Results were sensitive to variation in sorafenib and BSC survival after progression as well as sorafenib cost. There was a 95% probability that sorafenib would be cost-effective vs. BSC alone, using a threshold of $95,000 or less. **CONCLUSION:** Updating the model with the most recent clinical trial data still resulted in an incremental cost-effectiveness ratio within the established threshold that society is willing to pay for cancer care (i.e. $50,000–$100,000 per LY). Thus, consistent with earlier findings, sorafenib+BSC appears to be cost-effective in the management of advanced RCC.

PCN25

CONSIDERATIONS FOR MODELING THE COST-EFFECTIVENESS OF PREVENTATIVE PROSTATE CANCER TREATMENTS

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Current cost-effectiveness models of prostate cancer prevention treatments examine the cost-effectiveness of preventative treatments from the perspective of patient populations specific to the treatment's clinical trial. However, factors such as age, race, family history, and prostate-specific antigen (PSA) levels are major predictors of patient risk for developing prostate cancer. **OBJECTIVE:** To create a model that examines potential clinical and economic benefits of preventative treatments in various patient populations as defined by prominent risk factors that can be used to identify populations who might most benefit from preventative treatments. **METHODS:** Similar to previously published cost-effectiveness models for preventative prostate cancer treatments, we developed a Markov model considering health states such as cancer-free, low-grade prostate cancer, high-grade prostate cancer, and death. We also consider the impact of avoiding benign prostate hyperplasia (BPH) and decreased quality of life due to treatment-related adverse events such as erectile dysfunction. Unlike previous models, our model incorporates prostate cancer nomograms developed from an analysis of a clinical database of at-risk men to estimate the probability of high and low-grade prostate cancer and recurrence. Nomograms consider age, race, family history, free-to-total PSA levels, PSA levels, and DRE results. The model can also consider incidence of prostate cancer by age and race as seen in SEER and high-grade prostatic intraepithelial neoplasia, family history, PSA levels, previous biopsy results, and BPH and DRE results as obtained from an analysis of the European Study of Screening for Prostate Cancer database. **RESULTS:** The model generates cost-effectiveness ratios identifying conditions where preventative treatment is most cost effective versus no preventative treatment. Ratios also identify specific patient populations where preventative treatment has an advantage. **CONCLUSIONS:** The model can incorporate patient risk factor diversity to generate cost-effectiveness ratios specific to different epidemiological populations; thus, better targeting populations who might benefit most from preventative treatments.

PCN26

COST-EFFECTIVENESS MODELING OF COLORECTAL CANCER 10 YEARS SCREENING USING COMPUTED TOMOGRAPHIC COLONOGRAPHY VERSUS COLONOSCOPY AND FECAL OCCULT BLOOD TESTS

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OBJECTIVE: To assess the cost, effectiveness and cost-effectiveness of three colorectal cancer (CRC) screening strategies. **METHODS:** Simulation modeling was used to assess three colorectal screening strategies of a virtual population over 50 years old: computed tomographic colonography (CTC), colonoscopy and Fecal occult blood tests (FOBT). The model used a simulation decision framework over a ten-years period. CTC is repeated after 10 years if negative, and after three or five years if positive with advanced or non-advanced adenoma respectively. Colonoscopy is repeated after ten years if negative and after three years or five years if positive with advanced or non advanced adenoma respectively. FOBT is repeated every two years. Positive CTC and FOBT are systematically confirmed by colonoscopy. The model computes the total cost and the incidence of CRC after ten years of each screening strategy. **RESULTS:** Considering a population adherence of 50%: colonoscopy being the only screening strategy over 10 years is the most costly screening strategy, €885 per individual, with 0.54% of remaining CRC. CTC as only screening strategy over 10 years costs €543 per individual with 0.18% of remaining CRC. FOBT as only screening strategy over 10 years costs €459 per individual with 0.18% of remaining CRC. Mean cost-effectiveness ratios expressed as cost-per-CRC-avoided are 544 with CTC, 890 with colonoscopy and €460 with FOBT. **CONCLUSION:** This simulation modeling approach allows to take into account data variability and to test various screening strategies. Further simulations have been performed to study the impact of various screening program